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Studies in the Ericaceae (Ericoideae), XX. A rare new species of *Erica* from South Africa.

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Erica kogelbergensis is a showy species, very restricted in its distribution occurring only on the southern slopes of Kogelberg Peak and the adjacent ridges and lesser peaks to the east and southwest, only 80 km southeast of Cape Town. There it is confined to moist, peaty areas that receive a considerable amount of moisture, not only during the rainy winters but also from the frequent clouds that are swept over the summit slopes by the southeast winds during the dry summers. This mountain is situated within the area of highest diversity of species for the Cape flora as a whole and for *Erica*. There are about 175 species of *Erica* in this area (Oliver *et al.* 1983). Another restricted endemic on this peak is the well known, yellow-flowered *E. pageana* (see *Yearbook of the Heather Society* 1995) which, however, flowers in October.

History

There has been some confusion with material of this species in herbaria. *Erica serratifolia* was described and figured by Andrews in 1798 from material of unknown origin growing in London. Like many of the cultivated specimens illustrated by him, this entity is difficult to place in any of the currently accepted species known from wild populations. In these cases I have to regard them as being of hybrid origin raised in a garden. The unappendaged anthers, long lateral flowering branchlets, smooth corolla and serrate leaves clearly do not fit the wild populations of *E. kogelbergensis*. Bolus placed his variety under Andrews' name, but did remark that the latter was known only from garden specimens. Andrews' *E. serratifolia* apparently flowered in spring whereas *E. kogelbergensis* is autumn-flowering.

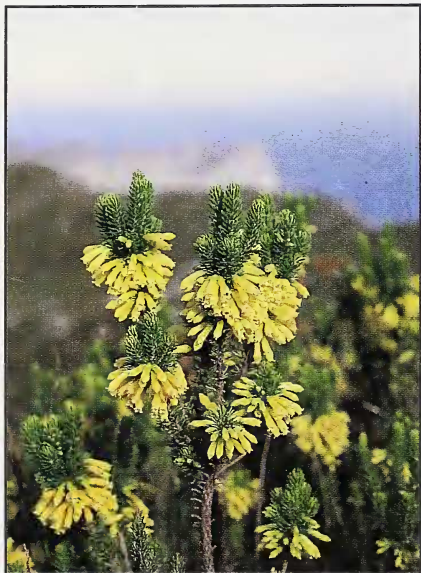


Fig. 1. *Erica kogelbergensis*: yellow form



Fig. 2. *Erica kogelbergensis*: bicoloured form

The early collections in herbaria (including the types) were obtained from flower sellers in Cape Town with consequent lack of, or incorrect, locality data. However, one from 1936 was said to have come from the mountains between Steenbrass and Kogel Bay, which is reasonably accurate.

Erica kogelbergensis is related to the group of tubular-flowered species that have 4-nate leaves, hairy corollas and anthers with very small appendages; *E. perspicua* Wendl., *E. macowanii* Cufino, *E. leucotrachela* H. A. Bak., *E. colorans* Andr. and *E. bibax* Salisb. The first three have rather coarser and longer hairs on the corolla and *E. colorans* is a lowland species from the Bredasdorp region with white to pink flowers. *E. bibax* occurs on the middle northern slopes of the Kogelberg complex and is probably the closest allied species. However, it is a more delicate species producing long slender branches with narrower, soft leaves and flowers which are pale yellow, sometimes tinged orange, with white lobes. It grows alongside streams.

There are two colour forms which appear to coexist in some populations, the pure yellow form and the bicoloured orange and

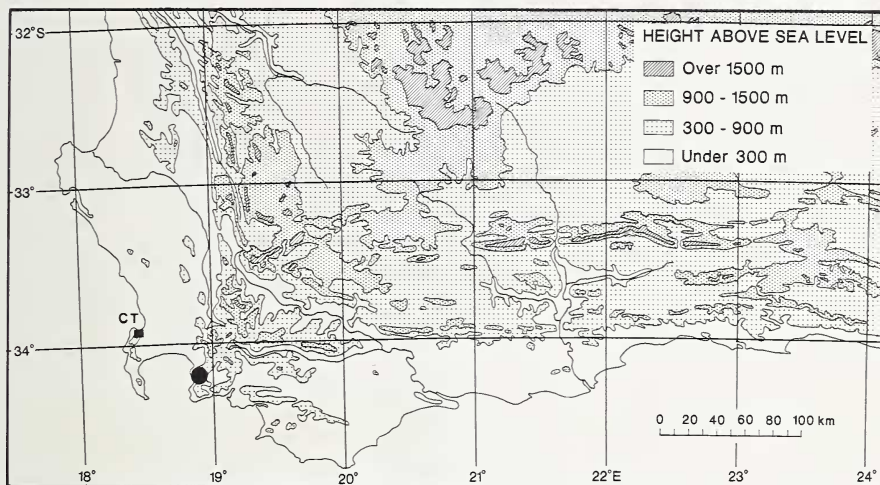


Fig. 3. Distribution of *Erica kogelbergensis* in Western Cape [CT=Cape Town]

yellow form. It is not possible to ascertain which colour form the type exhibited. These colours, coupled with the long tubular flowers, suggest pollination by birds, perhaps the small orange-breasted sunbirds which occur in the area (Rebello *et al.* 1985).

Erica kogelbergensis E. G. H. Oliver **stat. & nom. nov.** (§ *Evanthe*)

Erica serratifolia Andrews var. *subnuda* H. Bolus, *Transactions of the Royal Society of South Africa* **1** (1909): 158.

Shrub erect up to 1.5 m tall, single-stemmed reseeder. *Branches* erect, internodes ± 2 mm long, puberulous with spreading hairs becoming glabrous, no infrafoliar ridges. *Leaves* 4–6-nate, semi-erect, 0.6–0.8 x 0.1 mm, linear, adaxial surface flat, abaxial surface rounded and narrow-sulcate, glabrous, the younger sparsely ciliolate; petiole appressed, 0.1 mm long, sparsely and shortly ciliate. *Inflorescence* with 1–4-nate flowers in 1 whorl at ends of 5 mm long lateral branchlets forming a dense pseudospike about 40–100 mm long towards ends of main branches; pedicel 0.2 mm long, pubescent; pherophyll partially recaulescent in middle position, 0.2 mm long, ovate-acute, glabrous, ciliolate, yellow-orange; bracteoles 2 just above pherophyll, 0.18 mm long, otherwise same as pherophyll. *Calyx* 4-partite, appressed to corolla; segments 0.6 x 0.2 mm, ovate-acute,

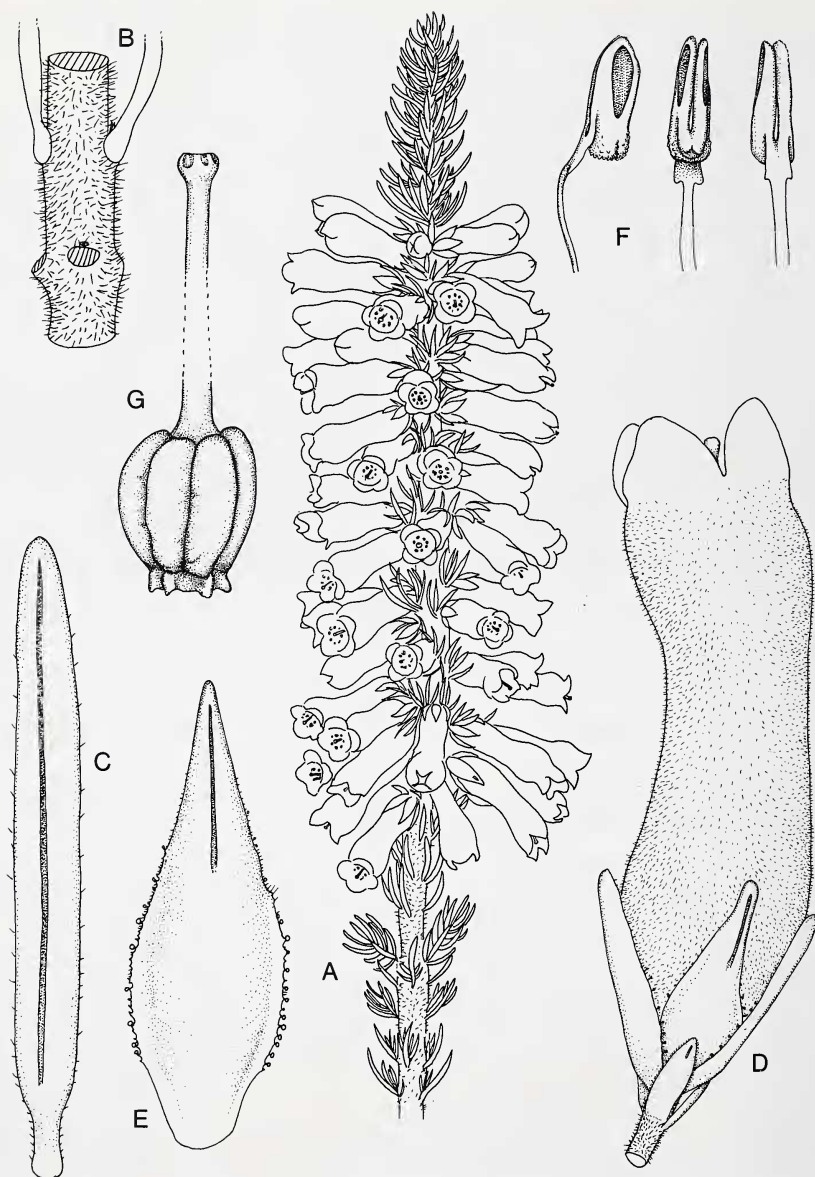


Fig. 4. *Erica kogelbergensis*. A, flowering branch, natural size; B, branch with some leaves removed, x12; C, leaf, x12; D, flower, x6; E, sepal, x12; F, anther, side, front and back views, x12; G, ovary with stigma above (right), x12; [del. Inge Oliver].

glabrous, edged with a few short hairs and sessile non-sticky glands, apically narrow-sulcate, yellow-orange. *Corolla* 4-lobed, ± 15 mm long, tubular, inflated below the mouth, finely puberulous, completely yellow, or orange with yellow; lobes erect to spreading, subacute to rounded, incurved when old, mostly glabrous. *Stamens* 8, free, included; filaments 8 mm long, slightly curved at apex, linear, glabrous, orange; anthers dorsifixed near base, appendiculate; thecae 1.5 mm long, oblong-obovate, aculeate at base and apex, brown; appendages shortly decurrent along apex of filament; pore half the length of theca; pollen shed in tetrads. *Ovary* 4-(5-6)-locular, 2.0 x 1.8 mm, broad-ellipsoid, 8-lobed, subemarginate, glabrous; ovules ± 28 per locule, spreading to pendulous; placenta < the length of axis; nectaries present around base; style 13 mm long, terete, glabrous; stigma manifest, capitellate. *Capsule* with valves splitting to base and spreading $\pm 30^\circ$, orange, septa free from columella; seeds ovoid, deeply reticulate, pale orange-pink. (Cover photograph & Figs. 1-4)

Lectotypus: **SOUTH AFRICA**. Cape Colony, Caledon Division, mountains between Caledon and Hermanus, May, [near Hermanuspetersfontein, bought fresh in Cape Town, 2 May 1908] *N. S. Pillans 1334* **BOL!** (selected here); **isolectotypi** **NBG!**, **PRE**, **SAM!**. Syntypus: **SOUTH AFRICA**. Cape Colony, Caledon Division, mountains between Caledon and Hermanus, fl. Sept. [bought in Cape Town, Sept. 1906], *N. S. Pillans 228* **BOL!** Other specimens. **SOUTH AFRICA**. Western Cape. **3418**: (-**BB**), Kogelberg, upper SW slopes, 1250 m, 21 April 1970, *Boucher 1240* (**NBG**); *ibid.*, *Esterhuysen sub Baker 2638* (**NBG**); *ibid.*, S slopes, 762 m, 4 May 1989, *Kirsten 1192* (**NBG**); *ibid.*, *le Maître 403* (**NBG**); *ibid.*, upper S slopes, 1150 m, 26 May 1989, *Oliver 9137*, bicoloured form, (**BM**, **K**, **MO**, **NBG**, **PRE**) & *9137a*, yellow form, (**NBG**, **PRE**); *ibid.*, ridge S of Kogelberg, E slopes, 9 May 1966, *Powrie 3* (**BOL**); *ibid.*, May 1939, *Stokoe 7158* (**BOL**, **K**); Spinnekopsnes Range, steep S slopes near summit, 670 m, 8 July 1970, *Boucher 1330* (**K**, **NBG**); Koedoeberg, just below summit, S side, 860 m, 15 February 1973, *Boucher 2114* (**NBG**); *ibid.*, 13 September 1969, *Vogelpoel sub Baker 2971* (**BM**, **NBG** +2).

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- REBELO, A. G., SIEGFRIED, W. R. & OLIVER, E. G. H. 1985.** Pollination syndromes of *Erica* species in the south-western Cape. *South African journal of botany* **51**: 270-280.